



December
2015

The Surrey Amateur Radio Club

Communicator



The Newsletter of the Surrey Amateur Radio Club

December 2015



At The Last Meeting...

SURREY AMATEUR RADIO CLUB

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At The November Meeting...

Minutes of the November 18, 2015
General Meeting

Introduction

The meeting was opened at 1900 hr by President (Mike Plant VE7AT). Jeremy Morse VE7TMY volunteered for secretary and photographer duties. Twenty members attended the meeting.

Financial Report

Scott Hawrelak VE7HA reported on club assets. Badges will be ordered next spring, \$10 contact Scott if interested.

Jinty needs money now for the Christmas Party or via Paypal as donation with a note of \$25 for the party.

Club House Update

Mike Plant VE7AT reports no significant progress yet; he is still meeting with municipal groups and determining the next steps.

Christmas Party Update

Jinty Reid VA7JMR states that the invitation has been extended to non-members as of November 14th, November 22nd is the last day for booking your seat as on November 23rd the numbers will be confirmed with the Kalmar.

Please eMail Jinty at jinty.reid@gmail.com if interested in a seat. Even up to the last minute there may be room, so contact her if you're still interested in attending.

Repeater Update

Mike Plant VE7AT reports that the 220mhz repeater is up and running. During setup the VHF repeater was interfering with the 220mhz repeater. When the 2m repeater had its power turned down only slightly, the issue went away.

Someone recently connected both IRLP nodes together and this is not possible - please don't do it.

220mhz Antenna Options

Fred Reichstein VE7MPI presented an option for a ½ wave sleeve antenna with 1.5 SWR presented and a J-pole ½ inch copper tube antenna.

Fred explained that several options exist for 220mhz and these antennas can be built with common parts and general plumbing/soldering skills. Screws can also be used instead of soldering.

He was able to reach the 220mhz repeater clearly with 1 watt using the homemade J-pole from inside his house.

LARA Club Update

Al Munnik VA7MP made an announcement that the LARA (Langley Club) has placed its main repeater back online and this complements the other 2 repeaters the club already has operating.

This brings the total for the club to 3 repeaters providing great coverage across the Fraser Valley, all on 147.80mhz.

There are different sub-audible tones on each repeater. The only issue being experienced is having multiple repeater identifications double with operators.

The most recent repeater setup is 100ft high on the e-COMM tower. This has its own battery backup and is maintained properly at the site.

SARC Communicator

Mike Plant VE7AT expressed a big thank you to John Schouten VE7TI (not present at meeting) for the recent milestone of producing 60 SARC Communicators.

Field Day Update

Stan Williams VA7NF reports that we did very well and were the top club in Canada overall and 4th place in North America for our class. Stan explained that even though we were 4th place this is a huge accomplishment due to our geographical location on the west coast as we have about 2 skips to contend with to reach east coast contacts.

Coffee Break

Timbits provided by Jinty Reid VA7JMR, thanks Jinty!

Featured Speaker: BCARCC.org

George Merchant VE7QH is a Director with the BCARCC (British Columbia Amateur Radio Coordination Council). This organization is an entity responsible for maintaining order and registration of the repeater frequency assignments for BC.

Admittedly the group does not hold authority for enforcement but they are the liaison between Industry Canada and Amateurs seeking to setup a repeater. A memorandum of agreement provides the BCARCC its mandate with Industry Canada.

The group consists of members of various clubs with the maximum for any single club being 8 delegates. They use technical knowledge and common sense to coordinate efforts between new repeater assignments and to resolve any conflicts that may also occur.

This coordination can be challenging at times due to different band plans that exist across the US/Canada border. For instance 2m repeater frequencies in the US conflicts with some simplex allocations in Canada.

The 1.2m band 220mhz frequencies are wide open and lot of allocations are available. On the 70 cm band 440mhz is a bit of a challenge and on the 2meter band all are in use, and no spots are available (implied for the Lower Mainland but all of BC is coordinated by the BCARCC)

There are 5 digital modes now and issues exist with digital allocations since the 6khz bandwidth only applies to a digital repeater. 20khz spacing is the norm for analog SSB.

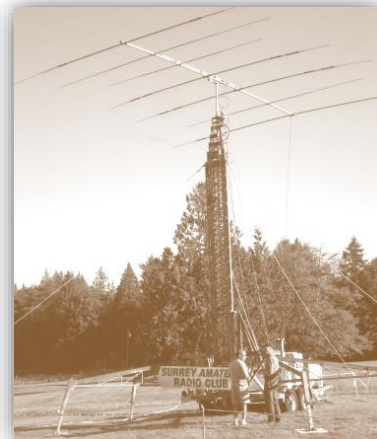
50/50 Draw

Winner Jinty Reid VA7JMR

Meeting Adjourned at 8:50pm

Minutes prepared by:

~ Jeremy Morse VE7TMY



The **SARC Communicator** is published monthly except July and August for members of the Surrey Amateur Radio Club.

To subscribe, unsubscribe or change your address for e-mail delivery of this newsletter, notify SARCcommunicator@outlook.com

Non-members living in the Greater Vancouver area may receive one trial issue.

Beyond our membership area, annual Communicator subscriptions are available for a \$5 donation towards our Field Day fund.

SARC maintains a website at www.ve7sar.net that includes club history, meetings, news, photos and other information.

Kalmar Koffee Klatch Reminder



The SARC Weekly Koffee Klatch has been moved to Saturday at the same place, the Kalmar Restaurant at 80th and King George Hwy in Surrey at 9:00 am. Bring your significant other, bring your family, see old friends and have fun.

On The Cover...

On the cover, Santa NØEL, has his trusty hand-held transceiver at the ready for his long ride and has received his SARC QSL card, no doubt having worked VE7SAR during one of the many contests we participated in this year.

However you celebrate, make it a safe one and we hope that you will find a little 'ham something' in your stocking.

The Directors of the Surrey Amateur Radio Club wish you and yours a very happy holiday season



December 2015



The Contest Contender

Brett Garrett VE7GM

...I see one of my favourites: the RAC Winter Contest on December 19th

November brought some great contests, including the ARRL Sweepstakes (CW and SSB versions), the RTTY version of the Worked All Europe (WAE) DX Contest, and the CW version of the CQ Worldwide DX contest. The Worked All Europe RTTY contest was our one hosted contest in November, and thanks are due to John VA7XB for opening up his fine station for this one. No further hosted contests are currently on the horizon.

As I look through the contest lists for December (using the fine WA7BNM website and the ARRL "Contest Corral" list, both of which I refer to at the end of this article), I see one of my favourites: the RAC Winter Contest on December 19th. OK, I admit to being a bit of a nationalist. But it is sure is fun to work the DX stations, and it always amazes (and pleases) me how ready our friends and neighbours to the south are to jump into a pileup we're running to give us the needed "Qs" for our logs. (Some of my logs would look pretty bleak if it weren't for all the Ks, Ws, Ns, and As.)

The contest starts Saturday at 0000 UTC (Friday at 16:00 PST, so don't be late!) and the exchange for the Winter Contest is easy for Canadian stations: 59 (in SSB, or 599 in CW) and province/territory abbreviation. DX and US stations will send us 59(9) plus a serial number. (Suggest "1" if they don't offer a number.) Both CW and SSB

action should be plentiful. The detailed rules can be found here:

<http://wp.rac.ca/wp-content/uploads/2015/07/2015-Winter-Contest-Rules-English-French.pdf>

The month begins earlier, however, and so do the contests. The TARA RTTY Melee (rules here:

http://www.n2ty.org/seasons/tara_melee_rules.html) runs for 24 hours starting at 0000 UTC on December 5th. This is the same day as our SARC Christmas lunch, so be sure to plan your eight hours of allowed "off time" around the lunch. (Sleeping is optional, but please don't plan to catch up on missed sleep at the lunch!)

Another one on the same December 5-6 weekend is a new UK & Ireland SSB contest. There is a CW event on January 23-24 (dates UTC).

Details can be found on the ARRL website here: <http://www.arrl.org/news/new-uk-ei-dx-contest-to-launch-in-december> and at the official website here: <http://www.ukaiccc.com/which-contest/contest-rules/uk-ei-dx-contest>

You might be interested, at least for this year, because for this introductory year DX stations, which means anyone outside UK/EI, can work each other. However, note the following:

"Contest adjudication will be automated, and log files must be submitted within 2 hours of the end of the contest. Several popular logging programs, including N1MM Logger+, support this event."

So don't stop for coffee after working the event until you have that log safely submitted! Note that N1MM+ supports this contest (with a precautionary note—see the end of the official web page).

The following weekend brings the ARRL 10-Meter Contest. Propagation is going to be a major risk factor for this one, but I have been surprised recently to hear (using one of my simple wire antennas) a couple of 10 m beacons in addition to the local VE7MTY/B. This can be a great band when it's open, so if you can find the time to take advantage of the contest, don't forget to check it out.



You might be able to get some idea of the real-time propagation by looking up VE7MTY (transmitting on 28.197) on one of the Reverse Beacon network sites (e.g. <http://www.reversebeacon.net/dxsd1/dxsd1.php?f=0&c=ve7mty&t=dx>). For the referenced site, look for the spotting station at the left to see who is receiving it (pay attention to the date!), and hover your mouse over the spotting station call sign to see their country and ITU and CQ zones. At time of writing, W4KKN in Virginia is reporting a current spot, although the signal-to-noise ratio (snr) is only 5 db. The previous spot (from KM3T) was nearly three days earlier, so propagation is iffy.

The contest runs for 48 hours, starting at 0000 UTC on Saturday (Friday at 16:00 PST). You can find the rules here: <http://www.arrl.org/10-meter>.

On December 20th (UTC, the day after the RAC Winter Contest) the ARRL is sponsoring a contest I like to try to support: the ARRL Rookie Roundup (CW version). If you work CW and can find the time, fire up the old rig between 1800 and 2359 UTC and give the rookies some support. You can find the rules here: <http://www.arrl.org/rookie-roundup>.

The following weekend is the Christmas weekend, so I'll be hanging up my headset and mingling with family and friends, but if you feel inclined, you can still find contests.

To keep up to date on the available action, I strongly recommend the ARRL Contest Update, which is mailed out bi-weekly to ARRL members who subscribe ([http://www.arrl.org/the-arrrl-contest-](http://www.arrl.org/the-arrrl-contest-update)

[update](http://www.arrl.org/the-arrrl-contest-update)). Past issues (including the last mailing) are available to anyone here: <http://www.arrl.org/contest-update-issues>. The update holds lists of upcoming contests, miscellaneous related news items, and helpful contesting tips, such as this one from the November 18th issue: "Work Duplicates. It's less disruptive to the rhythm of your run. It could be faster and less confusing than sending "WRK B4". In this era of computer logging, the caller must not have you in their log, so it's in your interest to have the Q, too." Great advice from the book of best practices.

As always, for regular mid-week contest practice, CW contesters have the CWops Weekly Mini-CWT test (<http://www.cwops.org/cwt.html>) and SSB enthusiasts have the Phone Fray (http://www.perluma.com/Phone_Fray_Ccontest_Rules.pdf). The SEPAR Tuesday night 2 m net now starts at 19:15 (PT), which makes it easier to check into the SEPAR net and then jump over to the HF bands for the Phone Fray. The Phone Fray is an easy contest for anyone with HF SSB capabilities, so be sure to give it a shot. (We still need some more local action, hint, hint.)

As always, you can find a list of most of the latest contests from the (customizable) WA7BNM contest calendar (<http://www.hornucopia.com/contestcal/index.html>), and by checking the monthly ARRL "Contest Corral" lists (<http://www.arrl.org/contest-calendar>).

73 & GL in the contests!

~ Brett VE7GM

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Great Tips... US NATIONAL PARKS ON THE AIR

The ARRL National Parks on the Air event will start January 1 2016 and run for the entire year. It has many similarities to the ARRL Centennial Contest. Remember this starts on January 1 2016, but you may as well read all "the stuff" and be ready to go! Have fun with it. For more information the sites below will be of assistance

<https://npota.arrl.org>

<http://www.arrl.org/NPOTA>

<http://www.arrl.org/news/manhattan-project-sites-now-eligible-for-national-parks-on-the-air-e>



December 2015



Tech Topics

Adam Foley N1RKW

A Look At Power Supplies

Adam Foley N1RKW has been around ham radio most of his life, but didn't smarten up and get his license until 2008. Since then he has gone on to great heights (the 12' high roof of his old house, and the 3rd floor apartment he's in now), and recently decided to take up writing a monthly column about ham radio and electronics, two of the subjects he knows a little bit about (but not much). He lives in Laconia, NH with his incredibly tolerant wife and equally tolerant son.

I expect that almost everyone that reads this column is a ham radio operator. As such, nearly all of us have some sort of ham radio gear, usually a transceiver of some sort (or many of them!) and the fixings to go with it. These can range from a simple handheld radio, to a super-complex contest-quality HF megabox, to a monoband VHF mobile rig, to a computer-based SDR radio, to a tiny little portable CW Altoids-tin radio, and everything in between. All of these very different amateur radio transceivers have something in common that many of us (myself included) hardly give a thought to. This is something that is needed for every type of radio, no matter how new, no matter how old, no matter how simple, and no matter how complex. What I'm referring to is a power supply.



Linear Power Supply

This is an Astron RS-20M power supply. It is what is known as a linear power supply, and is but one example of the many types of power supplies that are available to power your ham radio. Other types include, but are definitely not limited to, switching power supplies, alkaline batteries, NiCD/NiMH rechargeable

batteries, lithium-based batteries, solar power systems, hamster wheels, super-capacitors, and generators. I will be limiting the scope of this article to the power supply types that I am familiar with, as I am certain that you don't want me making stuff up.

Let's start with our old friend the linear power supply. These can be easily identified by the hernia you get when trying to lift them. A linear power supply relies on a large iron-core transformer to transform the 120 volt AC current coming in from your wall outlet to a lower voltage that can be used by the internal circuitry of the power supply, usually around 24 volts. This voltage is then rectified by some large diodes and then reduced to 13.8v by an electronic device called a voltage regulator. The name says it all, pretty much. This device, which is often an LM723 IC, puts out a stable reference voltage, which is then used to control the large transistors located on the back of the power supply, which in turn work together to provide the necessary output current to power your radios.

Even though this is a very simplified description, linear power supplies aren't terribly complex. They are sturdy, reliable, produce clean DC (very little high frequency noise on the power supply's output), and have been around for a long time. They do have a few drawbacks: They are very heavy so they don't work well in portable applications, they are quite large, and they are somewhat inefficient as they throw away a lot of energy as heat.

If you need a small, lightweight, and efficient power supply, a switching power supply may be precisely what you need. These power supplies cost a bit more than

their linear brethren (not much more, though!), but they are surprisingly powerful for their size and weight, and they don't put out as much extra heat (aka wasted energy).



Switching Power Supply (from a computer)

Switching supplies work a bit differently than linear supplies. They operate at a much higher frequency, allowing the supply to control the voltage with minimal losses in the form of heat. The disadvantages of switching supplies are increased complexity, possible noisy DC output (a properly designed switching supply won't have this issue), and increased expense. However, in most cases the advantages easily outweigh the disadvantages. In ham radio, the jury is still out, as many switching supplies cause interference all the way across the HF portion of the spectrum. As I said above, a properly designed supply won't have these problems, but many of the small switching supplies (also known as wall-warts) coming out of China are not properly designed and cause problems for many hams. It's safe to assume that the switching power supplies made by Astron and other familiar names are properly designed and filtered, and are therefore usable as ham radio power supplies. As always, buyer beware.

Batteries are another way that ham radios can be powered, and there are as many different types of batteries as there are hams using them.



Sealed Lead-Acid Batteries

These are sealed lead-acid batteries, often called SLA batteries. These are

what I use as a backup power source for my own ham radio station. The advantages of SLA batteries are high current output (needed when transmitting), high storage capacity, relatively low cost, and that they are easy to recharge. Heck, all you need to recharge them is a source of DC current at 13.8 volts. I can't imagine where a ham could find such a thing. CAUTION! If you plan on charging batteries from your station power supply, use an interface that will protect the power supply from back-charging, which usually kills them! Astron's BB30M is perfect for the job, and at \$69.95 is a lot cheaper than a new power supply. Or you could simply disconnect the batteries from the power supply and use a battery charger/maintainer, which is what works for me.

Another advantage of sealed lead-acid batteries is that they are safe to use indoors. Non-sealed lead-acid batteries, like the one in your car, are perfectly acceptable to use to power your ham station, as long as they are left in a well ventilated area (aka outdoors). They produce hydrogen gas when they are being recharged, and as most of us know, hydrogen is explosive. Not something you want to be filling your home up with.

The disadvantages of lead-acid batteries are their weight, their use of toxic materials, and the danger of having a jug filled with sulfuric acid hanging around. I keep my batteries in a plastic box in case one of them decides to leak, but for many people these issues are understandably just too much. Far lighter but just as capable as lead-acid batteries are lithium based batteries. There are a number of different chemistries of lithium batteries, including lithium-ion, lithium-polymer, and many others. They all share similar advantages of light weight, high storage potential, and 3 volts per cell output. A battery the same size as the lead-acid battery shown above weighs just a fraction of what it does, but holds just as much, if not more, energy. This is a great advantage to hams who wish to bring a high power radio backpacking, such as when doing SOTA activations.

The disadvantages of lithium batteries are that they need a very complex and battery-specific charging setup, they tend to be very expensive (prices may be

CAUTION! If you plan on charging batteries from your station power supply, use an interface that will protect the power supply from back-charging, which usually kills them!

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Alternatives to lithium based batteries are nickel-based rechargeable batteries such as nickel-cadmium (NiCD) and nickel-metal-hydride (NiMH).

coming down as demand goes up), and they can catch fire if shorted or physically damaged, though they are generally considered safe for most uses.

Alternatives to lithium based batteries are nickel-based rechargeable batteries such as nickel-cadmium (NiCD) and nickel-metal-hydride (NiMH). These technologies have been around a long time, and are generally quite reliable. NiMH batteries also do not have the disadvantages that NiCD batteries were known for, for example: “battery memory” where the battery refuses to recharge past a certain point.

These batteries are becoming less common in ham radio use these days, but are still often used as backup batteries for handheld radios. They can be handy, but one must be careful what device they are used in. If your device, say a portable radio, requires 9 volts, a 6-cell battery pack is just the ticket if you choose alkaline batteries. These batteries put out 1.5 volts per cell, so a 6-cell pack would give you the 9 volts you need for your HT. However, if you chose NiMH batteries, your radio would only be seeing 7.2 volts because nickel-based batteries only put out 1.2 volts per cell. This may be just fine, but it can also become a limiting factor, as most HTs put out less RF power when their power supply is at a lower voltage, and some other types of device might not work at all at the lower voltage.

Okay, so should you put in AA lithium cells instead? Probably not, as now your poor HT will be dealing with a whopping 15 volts! If your manual specifically states that 15v is within the acceptable power range, then go for it if you want to. Just remember that I don’t recommend it unless the device’s manual specifically states that it can handle the higher input voltage coming from lithium batteries.

The last type of power supply I want to talk about, if I haven’t put you to sleep by now, is a generator. This type of power supply is best NOT used for ham radios, at least not directly. Using the 120 volts AC coming from the generator to feed your regular power supply is usually just fine, unless the generator is super-cheap and has a super-noisy output. In other words, be careful.

Back to the subject at hand, the 12 volt output on generators with this feature is unregulated DC. It is neither filtered nor properly controlled. It is not usable for ham radios or any other electronics, as it will damage them or destroy them. All electronic devices need clean DC to run properly (devices that plug into a wall socket have their own power supply built in). The 12 volt output on all generators (as far as I am aware) is designed to only be used for charging lead-acid batteries, which don’t really care how clean the power they receive is.

Okay, so now we have a basic understanding of a number of commonly used power sources for ham radio, but how do you choose which one is right for your particular setup? Let me explain...

No, there is too much. Let me sum up.

Linear Power Supplies: These are best for use in situations where weight is not an issue, but reliability is. These are very commonly used at repeater sites, where climbing a mountain just to swap out a blown fuse is not an option. They are also slightly less expensive than switching power supplies, so they tend to be very popular in ham shacks.

Switching Power Supplies: These are useful in any situation where a linear supply would work, but are also much lighter and more efficient. That means that these are also useful as go-kit power supplies or for portable operation where commercial power is available. They also use slightly less energy than linear supplies do, but in normal use the difference is so small that it is hardly worth consideration. These supplies are somewhat more complex, and with complexity comes a certain amount of inherent unreliability (more parts to fail), but modern switching power supplies are often just as reliable as comparable linear supplies are.

Sealed Lead-Acid Batteries: These are useful in situations where power storage and charging simplicity are more important than weight and size. These heavyweights often see use as station backup power sources.

Lithium Chemistry Batteries: These are used in many ways, often as memory backup batteries or power for cell phones, tablets, and laptops. Hams often find use for larger ones as batteries for backpacking due to their light weight and high power storage. These benefits easily outweigh the disadvantages of needing specialized chargers and higher cost.

Nickel Chemistry Batteries: These are most often used as drop-in replacements for alkaline AA and other standard-size batteries. They also see a lot of use in battery packs for portable power tools, though these are leaning more and more toward lithium cells these days. The advantage of these batteries is that they are rechargeable, the disadvantage is that they put out a lower voltage than the alkaline batteries they are intended to replace, so they are not useful in every application.

Generators: These are typically useful in situations where commercial power is unavailable, and batteries would be impractical. These are good to have, but most of us would not choose one as our primary means of powering our radios.

In the end each ham needs to choose which type of power supply is best for his or her individual application. I hope this article will help you make that decision.

I am usually available on the 146.985 Gunstock repeater, or by email at my call sign at hotmail dot com. As always, I welcome your suggestions, comments, long-winded rants, and wildly inaccurate accusations.

~ Adam Foley N1RKW
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ADAM'S JUNK BOX

A Monthly Column By
Adam Foley N1RKW



Guest Columnist Adam Foley N1RKW is a member of the Central New Hampshire Amateur Radio Club and contributes a monthly column "Adam's Junk Box" to their newsletter, also called *The Communicator*.



Potential RFI Warning: Laser Christmas Lights

Beware... like most electronic junk allowed to be sold today, the new "laser Christmas lights" that project various patterns on your neighbours decorated house, are RFI buzz machines. Mine (and the ones up and down the street) take care of killing most the HF spectrum and includes some nice AM BC Band swaths of frequencies as well.

My unit was sold by Lowes, and has a plastic lens globe on the front of the fixture, which is pointed towards the desired surface to make a pretty pattern.

The "destructive" RFI range heard on my portable radio was +40 feet. It seems these lights are the new, popular effect this year and most folks may be surrounded by installations. Unfortunately, my antennas

are also all within a 25 foot separation of the neighbours, and the general increase in noise floor from the residential area won't make for a Merry Christmas.

~ Greg VE3FAX

What to do?

We suggest getting the product manufacturer and model number of the device in question, Submit this to Industry Canada (The FCC for our US readers). Request a response. We have them here on our street but fortunately a ways down the road from us (so far). Let us know what response you receive from IC.



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Radio-Active

Jinty Reid VA7JMR



**Drew Elvins
VE7DRW**

Drew was born in 1972 in Mississauga, Ontario but moved to the town of Sandhurst Shores, near Lake Ontario, when he was still an infant. At Holy Cross Secondary School Drew was heavily involved in the technical and media department and pursuing his interests in photography. He was put in charge of the school photo dark room. He was also very involved with his school TV Station. When he reached college age, Drew moved to Toronto where he attended De Vry Institute of Technology, studying in electronic engineering technology. Looking for a better program, he changed colleges and transferred to St Lawrence College in Kingston where he studied instrumentation and robotics. Unfortunately, the program was suspended due to lack of enrollment so Drew moved to Vancouver, BC in the 1990's. In Vancouver he worked in shipping and receiving for an electronics and computer company. Moving up the ladder he then became head of their research and development department where he worked with some major vendors in computer research and development.

In 1977 Drew was involved in a major vehicle accident on his way back from a ski trip to Whistler from which he sustained major injuries. Both his feet and face from his eyes down required reconstruction surgery over a 7 year period. In spite of this Drew took a job 3 months after the accident working as a bench technician in a Printer Repair Shop. This enabled him to sit down while he worked as he had casts on both his feet. His experience through this trial showed his fortitude and ability to endure and rise above challenges in life. In 1999 he went to work for the DTM Company as a printer and hardware field technician initially and still works for this company today but now is their IT Management Consultant. While 4x4ing through Utah, California and Arizona he had a mechanical breakdown and his inability to call for help became the catalyst for becoming interested in amateur radio. He took his basic license from the Delta Amateur Radio Club in 2007 and joined SARC the same year. Mike Plant was his mentor. Drew also is a member of SEPAR and assisted them in building their Grab & Go kits.

In the area of ham radio Drew's main interests are in emergency, digital and HF communications, mostly from his mobile. He has a Yaesu FT857 which is his base radio, a Kenwood D510A in his truck, VHF and APRS, and lastly a Kenwood TS-480 SAT. He uses a Pactor USB Modem. He is also the SEPAR Representative for BC Warn. Drew has been doing net control for SARC since 2007. He has his Marine radio license.

Among his other interests Drew is an avid sailor and has been sailing since he was 6 or 7 years of age. He races competitively around North America. He has had his own sailing vessels in the past but not at present. As a teenager he was at the Olympic Qualifiers. He sails out of Vancouver in multiple races and has had many wins. In addition Drew is a keen off roader with his 4x4 and enjoys going on expeditions, doing an annual trip to Moab, Utah, and going on the Alexander McKenzie Trail. Skiing, scuba diving and rock climbing are among his other interests.

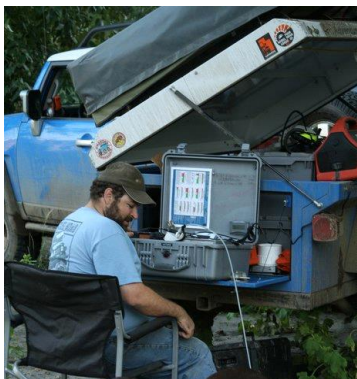
When asked if he has time for romance in his very busy life he stated that he is



in a long term relationship with a lady by the name of Diane. Oh, I forgot to mention he has a chocolate Labrador named Winston who has reached the ripe old age of 13.

In response to the question of future dreams Drew replied "if I dream it, I do it". When he finally retires from his job he plans to spend more time on his hobbies....however, he thinks that he may have to pull back on rock climbing and some of his more physically challenging hobbies when he becomes an old fella! As you can imagine, with all his technical knowledge Drew has a lot to offer amateur radio but he admits his busy life impedes some of his involvement with SARC. Thank you for sharing your skills Drew.

- Jinty Reid VA7JMR





Satellite Specialty Group

John Schouten VE7TI

Not One, But Two! ... Well, Sort Of

When it rains, it pours. Two new Amateur Radio satellites to report on this month but, the bad news, you can work only one with a hand-held transceiver and a small beam antenna, the other is in an equatorial orbit so you will have to travel a ways south. Hmm... Mexico is not so bad this time of year.

Fox 1A (AO-85)

The Fox-1 Project is a series of CubeSats. A total of five will be built and flown. Launches already have been scheduled for three more, and a new NASA CubeSat Launch Initiative proposal will be submitted for the fifth launch.

Of the four NASA-sponsored CubeSats on the October 8 Educational Launch of Nanosatellites (ELaNa) on October 8 that put Fox 1A (AO-85) and 12 other spacecraft into orbit, one (ARC1) never functioned, and a second, BisonSat, was lost after a few weeks of operation. RadFXsat/Fox-1B is waiting for a mission assignment.

Since the voice portion of the satellite will operate as a cross-band

FM repeater you can use the radio and antenna you have for operation on FM satellites such as AO-51 or SO-50. Recommended equipment includes 2m/70cm radio with full duplex operation; an alternative option includes using two half-duplex radios - one to transmit and the other to receive, and a small directional antenna.

Continent-wide Coverage Using Your HT

Because the orbit is elliptical, the size of the reception footprint will vary throughout the orbit. At apogee, its coverage will approximate that of SO-50. Stations appropriately located will often be able to make intercontinental contacts, with full coverage of a continent being typical.

Fox-1, like most LEO satellites, will have a group of 2-3 passes lasting 5-15 minutes, each approximately 90 minutes apart, followed by another group of 2-3 passes later in the day. Web-based satellite tracking aids will get you started to calculate when Fox-1 is in range of your station.

Fox-1 is expected to be an excellent satellite for both operations and demonstrating the adventure of amateur satellites, and will on some days be available during normal school hours for student access to the telemetry downlink of the experiment data.

- Standard 1U (One Unit) CubeSat.
- Size: 10 cm X 10 cm X 10 cm.
- Orbit: Depending on NASA ELaNa flight availability.

- Power source: NiCad batteries and fixed solar arrays
- Deployable 2 meter and 70 cm antennas
- For Fox-1A frequencies, see the [Operating Guide](#) to set up your rigs memory channels:
435.180 MHz FM Uplink 67 Hz CTCSS PL tone required and a 145.980 MHz FM Downlink. Note: If your rig has selectable FM filters use the wider filter for 5 kHz deviation 25 kHz channel spacing.

Download your free copy of the [AMSAT Journal Fox-1A Launch special issue](#)

FM transponder operating techniques: <http://www.dk3wn.info/p/?p=44412>

IO-86

IO-86 is in an equatorial orbit and should provide coverage between 30 degrees North and 30 degrees South of the equator. Dirgantara Rahadian YF0EEE has posted information about the FM voice satellite IO-86 to the AMSAT-ID Facebook page.

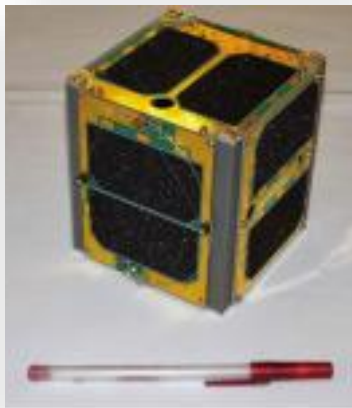
Every Amateur can use the FM voice transponder

- Uplink 145.880 MHz tone 88.5 Hz
- Downlink 435.880 MHz

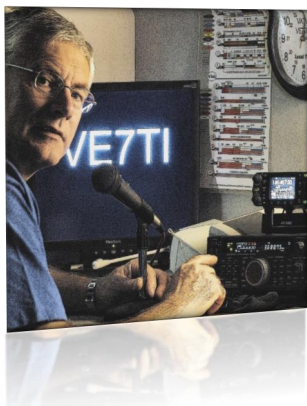
To build a suitable low-cost Yagi antenna for working the satellites, see http://www.work-sat.com/Work-Sat/Antennas_files/W6NBC-Beam.pdf

Good luck working these 'birds'.

~ John VE7TI



December 2015



QRM

...from the Editor's Shack

*Do you have a photo or bit of club news to share?
An Interesting link?*

*Something to sell or something you are looking for?
eMail it to [SARCcommunicator @ outlook.com](mailto:SARCcommunicator@outlook.com) for inclusion in this column.*

Welcome

Please welcome our newest hams Robert Fishwick VA7FMR and Brian Duran VA7VBD, Both passed their basic exam with honors.

Well done Robert and Brian, welcome to SARC.

The State of Electronics



I could spend days with a catalog like LaFayette or Allied. They were like telephone books and the best part... they were free.

A series of YouTube videos trace the changes in Australian hobby electronics. Not unlike our experience here in North America, including locally during the sixties, the world of electronics opens up to the do-it-yourselfer with readily available kits and parts. I can particularly identify with the episode: **Hunters & Collectors** as in my teens, I used to scavenge for parts from old radios and TVs for my projects:

<https://www.youtube.com/watch?v=1EndAZ5DR8o>

In the episode The Retail Revolution, they explore the 1970's & early 80's when the retailing of electronics to hobbyists exploded onto the scene. In Australia, this period saw the rise of Dick Smith VK2DIK and his retail chain "Dick Smith Electronics". Gone were the dusty days of "over the counter" electronics and in was "self service". It also heralded the marketing of Electronics, with advertising campaigns, marketing stunts, catalogues and more.

We saw this in North America too, with Radio Shack (in its heyday) and locally with RP Electronics which brought selection previously available only through large US catalogs like Allied Radio (the forerunner to Radio Shack) and LaFayette Radio Electronics.

The Retail Revolution

<https://www.youtube.com/watch?v=XUdN9soWHOQ>

Two other episodes (there are several additional ones) that you may find interesting are:

The Changing Face of Hobby Electronics

<https://www.youtube.com/watch?v=hT0aG3SRpRY>

The Role of Magazines

<https://www.youtube.com/watch?v=vViU3Ddy2da>

We have been asked by the Langley club to announce they now have 4 repeaters on their 147.380 frequency. They are separated by the following CTCSS codes. Well done LARA, for seeing this issue and also for your hard work to serve your members and the ham community better.

Tone 110.9 is at the E-Comm site antenna 100 ft of the ground near 72nd and 202 St

Tone 77.0 Is on top of the Langley Memorial Hospital. Fraser Hwy and. 220th

Tone 203.5 Is the Feed Lot, Fraser Hwy and about 250th and tone 4 is the Mobile repeater presently not turned on



Page 13—News You Can Lose

The Lighter Side of Amateur Radio

Wife Installs Pay-As-You-Go Device On Radio

Ham Hijinks staff report

BONIFACE, Minnesota — A local ham radio operator is facing a significant barrier to getting on the air, and it involves his wife.

Wendy Johansson, a self-described entrepreneur, has turned her husband's hobby into an income generator. She drives a new car, wears expensive furs and takes exotic vacations.

Johansson was reached by satellite phone while on a cruise of the River Nile in Egypt. "I had hoped to help moderate his time in his radio room, but instead it became a significant wealth-driver for the family. I've been able to send the kids to college and buy some nice purses," she said.

The source of the wealth? A coin-operated pay-as-you-go device that requires payment before allowing the radio to turn on.

"I didn't realize how much time I was spending on the radio," says Luther Johansson, the amateur radio operator.

"At this point, I've cleaned up all loose change in the couch cushions and under the car seat, and gone through every pair of pants in my closet. It's becoming increasingly difficult to resist my five-year-old's piggy bank," he said.

Johansson plans to start a Kickstarter account to fund his involvement in the phone portion of Sweepstakes.



"But, this weekend is the trader's net! I have no idea how I'm going to pay for that air time," he said.

Mrs. Johansson says she plans to manufacture more of the devices and sell them to other radio wives in nearby clubs.

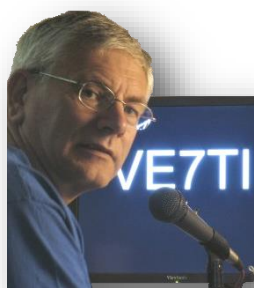
Ham Hijinks interns are looking into FCC rules regarding this matter. So far, it appears the law says nothing about an XYL having pecuniary interest.

~Ham Hijinks



"IT LOOKS LIKE EVERYONE WILL BE GETTING WHAT THEY WANT THIS YEAR...SOMEBODY POSTED MY CREDIT CARD NUMBER ON THE INTERNET!"

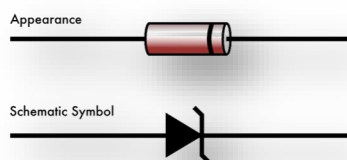
December 2015



Back to Basics

John Schouten VE7TI

From The Basic Question Bank



Question B-004-002-003 The primary purpose of a Zener diode is to?

- A. regulate or maintain a constant voltage
- B. provide a voltage phase shift
- C. to boost the power supply voltage
- D. provide a path through which current can flow

A diode allows current flow in only one direction. This is key in converting alternating current (AC) to direct current (DC). The Zener diode is like a general-purpose diode consisting of a silicon PN junction. When biased in the forward direction it behaves just like a normal signal diode passing the rated current, but as soon as a reverse voltage applied across the Zener Diode exceeds the rated voltage of the device, the diodes breakdown voltage is reached at which point a process called Avalanche Breakdown occurs in the semiconductor depletion layer and a current starts to flow through the diode to limit this increase in voltage thereby keeping it at a set value.

In simpler terms, if the input voltage rises, the Zener diode will maintain the intended voltage. This is key in power supplies for electronic equipment which can be damaged by voltage spikes and excessive voltage fluctuations.

The voltage point at which the voltage across the zener diode becomes stable is called the “zener voltage” for zener diodes this voltage can range from less than one volt to hundreds of volts. Common applications include providing a reference voltage for voltage regulators, or to protect other semiconductor devices from momentary voltage pulses.

The device was named after Clarence Zener, who discovered this electrical property.

The correct answer therefore: **to regulate or maintain a constant voltage**

~ John VE7TI

More information? See a video on Zener diode characteristics at URL:

<https://www.youtube.com/watch?v=xSQHfsHTS88>

And now... a word from our sponsors

Bill from Fleetwood Digital sent us the following email with a fantastic deal on a 220 Mhz dual band hand held, check it out.

“As you are on my list of interested parties in 220Mhz radios I thought I would personally email you this special I am able to offer.

I have the TYT TH-UVF9 on for the amazing price of \$79.99, This represents a savings of 20%.

For more information on this incredible rig click URL: http://fleetwooddp.com/digital/index.php?main_page=product_info&cPath=31_33&products_id=832

Hurry, this offer ends December 30th.”



Use of 146.52 MHz FM Simplex Frequency Cleared for ARRL Contests

The ARRL Programs and Services Committee earlier this year unanimously adopted a recommendation from its VHF and Above Revitalization Committee to remove the rule prohibiting the use of 146.52 MHz simplex for making contest contacts. The change becomes effective in 2016, starting with the ARRL January VHF Contest.

The VHF and Above Revitalization Committee concluded that the restriction was no longer necessary. The committee felt that permitting the use of 146.52 MHz would allow new/curious contesters

possessing only FM-mode radios to stumble upon more contacts, increasing their chances of being drawn further into VHF+ contesting -- the primary aim of the Revitalization Committee.

The change will also be incorporated into the ARRL Field Day rules. This change eliminates Rule 1.8 in the "General Rules for ARRL Contests Above 50 MHz," with subsequent Rule 1 sections renumbered accordingly.

It is expected that the Canadian regulatory body will follow suit.

...remove the rule prohibiting the use of 146.52 MHz simplex for making contest contacts.

We Did It!!

<http://www.arrl.org/results-database?>

From the Summer 2015 Communicator

When you look at these Field Day results:

- Our best score ever - YES
- Probable #1 VE in our Category - YES
- Possible #1 VE regardless of Category - YES
- Probable record VE score in our Category - YES
- Possible #2 in NA in our Category - #4

- Possible top 3% of ALL FD stations - 3.35%

It's obvious that with our 8,080 points we have achieved something very substantial and we should all be very proud of what we have done.

Thank you and congratulations to all for a job well done. There is no doubt in my mind that a lot of people are going to be noticing our ongoing climb through the FD standings.

~ Jim Smith VE7FO

NOTE:
The Field Day 2015 Video will be premiered at the Christmas Party. It will be on YouTube the following day.

Canada, All Categories

#	Call	Score	Category	QSOs	Power	Mult	GOTA	Call	Section	Participants	Club
1	VE7SAR	8,080	3AB	794	5			BC	30		SARC-SEPAR
2	VE7SAR	7,182	3AB	1,044	2			VE7YUM	GTA	23	PEEL ARC
3	VE7SAR	6,474	3A	1,340	2			VA0HJ	ONS	24	London City BC
4	VE7SAR	5,884	2F	1,362	2			VE7HRO	MAR	73	Halifax ARC
5	VE7SAR	5,504	3A	1,308	2			VE7KRG	ONS	13	Pondrevoch ARC
6	VE7HJB	4,956	3A	1,040	2			VE7BK	MB	69	Wooten ARC
7	VE7SAR	4,782	3A	1,208	2			VE7YK	GTA	55	York Region ARC
8	VE7SAR	4,490	3A	1,065	2			VE7YK	ONS	24	Niagara Peninsula
9	VE7SAR	4,346	2A	1,093	2			VE7YK	ONS	25	VE7ORET330 C
10	VE7SAR	4,050	2A	926	2			VE7YK	ONS	31	West Island ARC
11	VE7SAR	3,848	2A	1,049	2			VE7YK	ONS	30	Ottawa ARC
12	VE7SAR	3,818	1B2	892	2			AB	2		
13	VE7SAR	3,810	1B1B	146	1			ONS	1		
14	VE7SAR	3,650	1B2B	378	1			BC	9		Onca DX
15	VE7SAR	3,494	2A	783	2			ONS	1		
16	VE7SAR	3,458	1E	1,094	2			BC	35		Delta A
17	VE7SAR	3,448	7A	660	2			ONE	6		Frontier
18	VE7SAR	3,422	5AC	1,134	2			ONE	20		Quint
19	VE7SAR	3,346	4A	824	2			BC	25		EPC
20	VE7SAR	3,220	2A	1,135	2			GTA	30		Mississ
21	VE7SAR	3,190	9A	601	2			VE7WN	MAR	66	Greenwood ARC
22	VE7SAR	3,098	2A	794	2			VE7EMR	BC	42	North Shore ARC
23	VE7SAR	3,090	2A	863	2			ONS	10		South Georgian Bay AI
24	VE7SAR	3,020	1A	954	2			BC	1		
25	VE7SAR	3,020	1E	257	5						

← Our Class, All Sections

As you can see from the clips, VE7SAR did very, very well at Field Day 2015, sweeping all Canadian categories with a first place win and placing fourth in our category in the contest. Our best finish ever!

December 2015



80M/10M Sunday Night Net

The net will be every Sunday night at 8pm on 3.744mhz lsb and 28.500 mhz usb. We will start with voice checkins and CW practice for anyone wanting to do that on 80m then swing up to 10m and have voice checkins there.

Hope to see you there.

Radio Waves Magazine Available For Download

The PDF of the Fall 2015 issue of the free magazine **Radio Waves** published by ARRL Education Services is now available for download

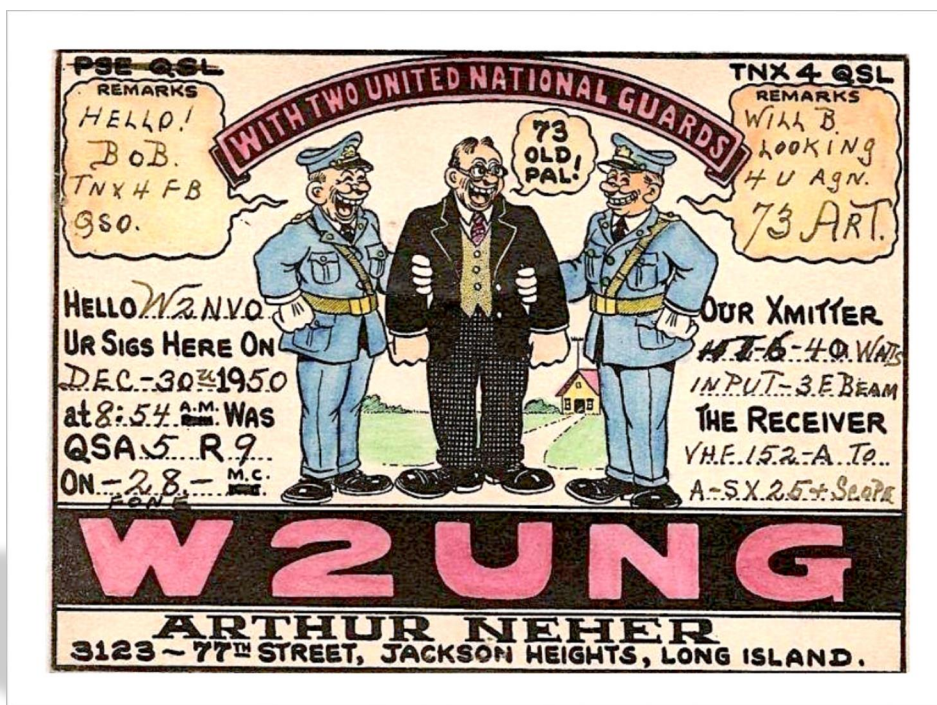
In this issue:

- Using Sensors to Explore Terraforming
- STEM School and Academy ARC Builds Repeater
- Community College's DIY Spirit Shines for ARISS Contact

- Amateur Radio Club Helps Boy Scouts Earn Radio Merit Badges
- The Evolution of a Licensing Class
- Education & Technology Program News
- Ham Radio Instruction for People with Disabilities
- Amateur Extra Question Pool Being Revised for 2016
- Licensing Statistics
- Upcoming Events, Opportunities, and Deadlines

Download the Fall 2015 issue from <http://www.arrl.org/files/file/Radio%20Waves%20Newsletter/Fall%202015%20Radio%20Waves.pdf>

Download previous issues from <http://www.arrl.org/radio-waves>



Otto Eppers' QSL Card Of The Month.

Don't know Otto? See The Communicator September 2015

Industry Canada

Update



The new 60m allocation at WRC-15

At the Sixth Plenary of WRC-15, the proposal for a new secondary allocation to amateur radio at 5 MHz passed both 1st and 2nd readings.

This effectively ends the four-year trek to bring Agenda Item 1.4 to fruition. The changes to the Radio Regulations authorizing the new band will appear in the WRC-15 Final Acts which will be available provisionally at the end of November and in a formal document some weeks later. The changes are tentatively expected to be effective 1 January 2017. Of course, in Canada, Industry Canada must still follow their processes - likely to include a public consultation - before authorizing Canadian amateurs to use the new band. NOTE: This means there is NO change to our current 60M allotments until Industry Canada acts.

The new allocation is for 15 kHz between 5351.5 and 5366.5 kHz and - for Canada - a power limit of 15 watts e.i.r.p. would apply.

Dale Hughes VK1DSH said that on November 18, 2015, during the plenary meeting, regulatory text for a new secondary allocation to the amateur was approved without comment.

He said: "This was the outcome of many meetings during the current WRC-15 conference, regular ITU-R Working Party 5A meetings and regional Asia-Pacific Telecommunity meetings, which started in early 2012.

"Some estimates of success for this WRC-15 agenda item (on the 5 MHz issue) were as low as 20 per cent. "So achieving this successful outcome was very much a team effort and the result of a great deal of work by individual national delegates,

national amateur societies, the IARU and supportive national administrations."

Generally 15 Watts EIRP is permitted in the ITU Regions 1 and 3, however Region 2 has 15 Watts for the USA, 20 Watts for Mexico, and 25 Watts in Central America, South America and most of the Caribbean area. USA has channelized access for radio amateurs on 5 MHz, and this is to change to the normal frequency agility.

The breakthrough for the International Amateur Radio Union (IARU) on the 5 MHz issue came as the result of years of preparation, trials and talks.

The IARU team went to the WRC-15 not at all confident on getting a new 60 metre band allocation. The 18 member IARU-team, co-lead by President Tim Ellam VE6SH and Vice-President Ole Garpestad LA2RR, includes Dale Hughes VK1DSH partly funded by the WIA and IARU, and about 10 others with their country-based delegation. It also engaged on a number of agenda items that may impact the amateur and amateur satellite services - and is keeping a watch on future proposals.

The IARU-team faced firm opposition against a wide sharing spectrum slice at 5 MHz.

The IARU had pressed its case at the spectrum marathon, but through a considered strategy, with careful listening, compromise and negotiation, found a way. The first big hurdle came from major countries including Canada, Russia, the United Kingdom and the United States of America, who felt such an allocation was too generous.

To persuade some to abandon their no-allocation position, a 15 kHz-wide slice compromise was agreed.

The other hurdle was the power limit, with it being lower than originally proposed, and now has measurement at EIRP, or Effective Isotropic Radiated Power, rather than transmitter output in watts. The limit sought by some was designed to protect existing in-band and adjacent band services at 5 MHz from perceived harmful interference, and that compromise gained even more support.

The smaller-than-hoped size of this allocation, the unusual band edges and the modest power limit reflect the painful compromises that over twenty hours of stressful negotiations resulted in. It is worth reflecting that with both the U.S. and Russia committed to "no change" along with a couple of dozen more countries the outcome defied the odds.

On the next WRC-19 agenda are proposals for 50-54 MHz, the amateur service and amateur satellite service band at 47-47.2 GHz, and small non-amateur, non-geostationary satellites that are looking for VHF and UHF allocations, possible threats to the 144 MHz and 430 MHz allocations.

A proposed agenda item to align the 160 metre allocation throughout the world is no longer on the table.

...The first big hurdle came from major countries including Canada, Russia, the United Kingdom and the United States of America, who felt such an allocation was too generous.

December 2015



Revised RAC 0-30 MHz Band Plan Released

The RAC 0-30 MHz Band Plan is available on the RAC web site and is shown in The Communicator, on page 20

The revised RAC 0-30 MHz Band Plan has been released with the effective date of December 1, 2015. This replaces the January 1, 2015 Band Plan version. It incorporates several updates to reflect feedback received on the earlier version. The Band Plan graphics have also been changed to improve readability and make it easier to determine which segments are recommended for which modes, especially for those who are colour-blind.

The RAC 0-30 MHz Band Plan is available on the RAC web site: wp.rac.ca/rac-0-30-mhz-band-plan or by navigating through the "How to Start?" tab on the RAC home page. A downloadable PDF file is available by clicking the image. The French version may be found at wp.rac.ca/qc/rac-du-plan-de-bande-0-30-mhz

Hats off to Vince d'Eon, VE6LK for the many hours of work preparing the graphics through numerous revisions. Thanks to the RAC Band Planning Committee, chaired by Al Penney VO1NO, with members Mel Martin VE2DC, Ken Asmus VA3KA, Frank VanderZande VE7AV, and Don Moman

VE6JY for the over one-year commitment in reviewing the old band plans and current practices. Thanks also to Claude Lalande VE2LCF and Dann St-Pierre VE6TD for their help in producing the French language version and to Eric Lysenko VE3EAL for his insights on improving readability. Finally, RAC would like to thank all those who provided comments on the January 1, 2015 Band Plan. This feedback was instrumental in producing a graphic of great use to Canadian Amateurs.

The RAC 0-30 MHz Band Plan is a living document. Comments and suggestions are welcome.

Please use the comment form wp.rac.ca/executives and select International Affairs Officer. Comments will be acknowledged and forwarded to the full RAC Band Planning Committee for consideration as future updates.

~ George Gorsline VE3YV
International Affairs Officer



Jim Dean VE3IQ



Farrell Hopwood
VE7RD

Jim Dean VE3IQ and Farrell (Hoppy) Hopwood VE7RD Appointed to Hall of Fame

The Board of Trustees of the Canadian Amateur Radio Hall of Fame is pleased to appoint Jim Dean VE3IQ (SK) of Ottawa, ON and Farrell (Hoppy) Hopwood VE7RD of North Vancouver, BC to the Hall of Fame for 2015. The awards will be presented at local ceremonies in coming months. A summary of their contributions to amateur radio will be published in The Canadian Amateur magazine.

The appointments are to recognize amateurs for outstanding achievement and for sustained service to amateur radio in Canada, or amateur radio at large. The Board of Trustees consists of an amateur radio representative from each province of Canada, appointed by the Directors of Radio Amateurs of Canada..

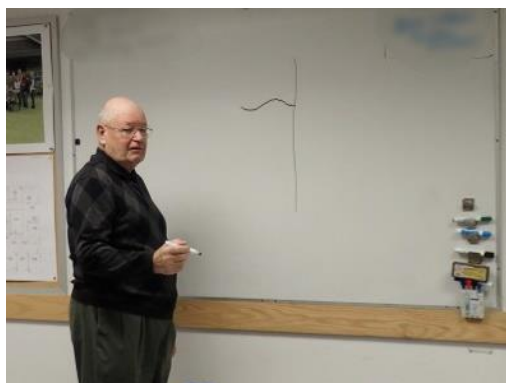
~ Ed Frazer VE7EF
Chair, Board of Trustees
Canadian Amateur Radio Hall of Fame



At The Last SARC Meeting

Photos Courtesy Of Jeremy Morse VE7TMY

Wednesday, November 18th.



Fred VE7MPI talks about 220 MHz antennas; George VE7QH outlines the purpose and structure of the BC Amateur Radio Coordination Council; and Stan VA7NF reviews our winning results from Field Day 2015



SARC at the Maple Ridge Swap Meet

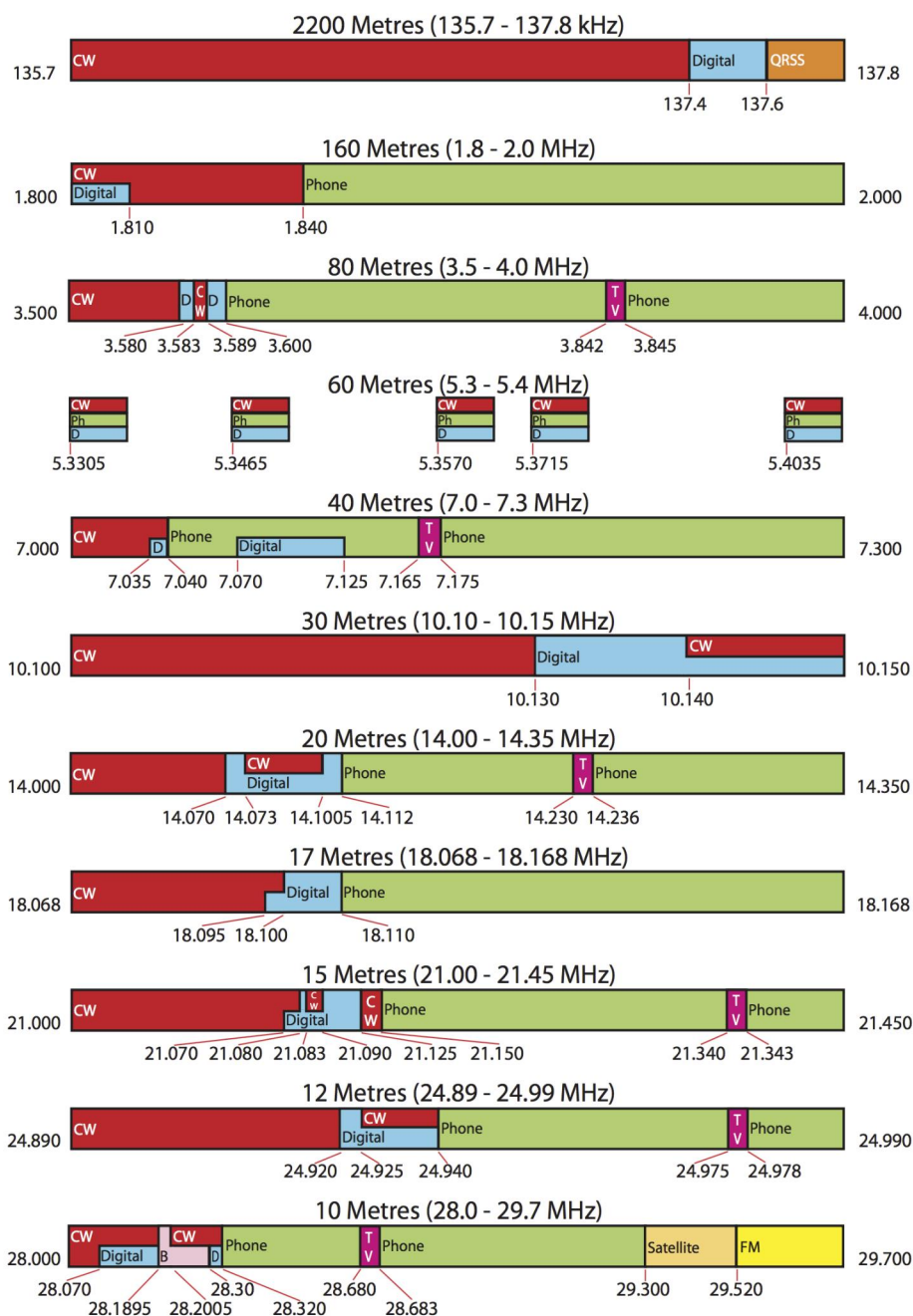


Canadian 0 - 30MHz Band Plan

**Effective Date:
December 1, 2015**

1. This is a simplified version of the official RAC Band Plan. Not all permissible modes/activities are represented.
2. LSB is used on 160, 80 and 40m. USB is used on all other bands that permit SSB, including 60m.
3. Consult various online resources for detailed information on what digital modes are used.
4. Maximum bandwidth permitted on 2200m is 100 Hz. Maximum power is 1 Watt EIRP.
5. Refer to the IC and RAC websites for full details before operating on the new 60m channels.
6. Remember not to allow your signal to spill over into adjoining band segments when operating close to the edges. During major weekend contests, activity in certain modes can spill over into other segments. Operators should avoid NCDXF beacons on 14.100, 18.110, 21.150, 24.930 and 28.200 MHz.
7. This graphic is a living document and will be reviewed and updated periodically to reflect changes in the band plans and operating habits.

www.rac.ca



Key

CW	CW	FM	FM	TV	SSTV
QR	CW QRSS	B	Beacons	D	Digital
Ph	Phone	S	Satellite		

December Events

Sun	Mon	Tue	Wed	Thu	Fri	Sat
NOTE: Check our VHF repeater at noon, we're going to try an Echolink net daily and see how it goes. Local amateurs should check in on the VHF repeater as we try to build a group of international Echolink check ins from the internet.		1 1915 SEPAR Net 2000 SARC Net	2	3	4	5 1100 Club Christmas Party: Kalmar Family Restaurant, King George Blvd & 81 st Ave CONTEST: See Dec 6
6 CONTESTS: TARA RTTY Melee UK & Ireland (SSB)	7	8 1915 SEPAR Net 2000 SARC Net	9	10	11	12 0900 Klub Koffee Klatch: Kalmar Family Restaurant, King George Blvd & 81 st Ave CONTEST: 10m (CW & SSB)
13 CONTEST: 10m (CW & SSB)	14	15 1915 SEPAR Net 2000 SARC Net	16	17	18	19 0900 Klub Koffee Klatch: Kalmar Family Restaurant, King George Blvd & 81 st Ave CONTEST: RAC Winter (CW&SSB)
20 CONTEST: ARRL Rookie Roundup (CW)	21	22 1915 SEPAR Net 2000 SARC Net	23	24		26 No SARC Coffee (Busy Shopping)
27	28	29 1915 SEPAR Net 2000 SARC Net	30	31		2
					Happy New Year!	

December 2015

CLUB EXECUTIVE 2015-2016

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Mike Plant VE7AT

VICE PRESIDENT

Brett Garrett VE7GM
(Memberships)

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John Brodie VA7XB

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(SEPAR Liaison)

Bill Gipps VE7XS

Al Peterson VA7ALZ

On the Web

ve7sar.net

Between newsletters, watch your e-mail for announcements of events, monthly meetings and training opportunities. These announcements can also be found on our web page, or via:

Twitter

[@ve7sar](https://twitter.com/ve7sar)

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[SurreyAmateurRadio](https://www.facebook.com/SurreyAmateurRadio)

Our YouTube Channel

[SurreyARC](https://www.youtube.com/SurreyARC)

SARC Photo Albums

Web Albums

or

tinyurl.com/SARCphoto

QRT

Mike Plant VE7AT—SARC President

Use It Or Lose It

How many times have you heard that comment? More than enough I bet. Well its true isn't it? Use that repeater or lose it! We are lucky to have the inventor of IRLP David Cameron VE7LTD helping us with our repeater system. We have three repeaters in a totally awesome location two of which have IRLP nodes and one has Echolink, What we are missing is you! Look around you, we are seeing more Condo's and Town Houses being built than actual houses these days. That means less and less antenna farms for us to put up a tower or string out wires.

The worst thing that could happen to Amateur Radio is the email and cell phones, too many times we reach for email or pick up the phone when we should be talking on the radio. We have modified the weekly two meter net to encourage conversation during and after the net.

We are also experimenting with a daily noontime net on 147.360 using Echolink node number 496228 VE7RSC, please use RF where possible as this will allow

multiple connections from other towns and countries to come and join us. Our first attempt was four locals and one UK amateur. This as with all things will take time to get the word out, and become second nature to other Amateurs and perhaps get us mentioned on the local weekly club nets.

How many of you remember the old IPARN days with nets on 147.060. That was fun using the Anik E2 Satellite talking all the way across Canada on VHF in the 90's. Wouldn't it be great if we could revisit those days, well, we could get closer if you pick up your radio's and talk!

One last sobering thought, sooner or later as the years creep on by, we will all be either living with a family member, muzzled by a Home Owners Association or living in a care home. Then that window to the world we have through Amateur Radio will get a heck of a lot smaller in availability and higher in frequency!

USE IT OR LOSE IT!

~ Mike VE7AT

The SARC Christmas Party

There may be some last minute seats for the SARC Christmas lunch on Saturday, December 5th. It will be at the Kalmar, the same location as last year. If you want to attend, please reserve now with jinty.reid@gmail.com





SARC hosts an Amateur Radio net each Tuesday evening at 8 PM. Please tune in to the VE7RSC repeater at 147.360 MHz (+600 KHz) Tone=110.9, also accessible on IRLP node 1736 and Echolink node 496228. On UHF we operate a repeater on 443.775MHz (+5Mhz) Tone=110.9 and Echo-Link Node 1736

	SEPARS Net 19:15 Hrs	SARC Net 20:00 Hrs
1st Tuesday Standby	Drew VA7DRW Jay VE7KC	Drew VA7DRW Brett VE7GM
2nd Tuesday Standby	Dixie VA7DIX Alan VA7BIT	Jinty VA7JMR Sheldon VA7XNL
3rd Tuesday Standby	Rob VE7CZV Vacant	Dixie VA7DIX Ralph VA7UB
4th Tuesday Standby	Jinty VA7JMR Dixie VA7DIX	John VA7XB Kapila VE7KGK
5th Tuesday Standby	Jinty VA7JMR Vacant	Mike VE7AT Brett VE7GM
Want a turn at Net Control? Contact the SARC Net Manager ve7at@gmail.com		

Down The Log...

SARC Monthly Meetings

2nd Wed. (Sept-Jun)
1900 hr at the PREOC
Emergency Mgmt BC
14275 96th Avenue,
Surrey, BC

Weekly Club Breakfast

Saturday at 0900 hr
Kalmar Family Restaurant
8076 King George Blvd.
Surrey

SARC Net

Tuesday at 2000 hr local
on 147.360 MHz (+)
Tone=110.9

SEPARS Net

Tuesday at 1915 hr local
on 147.360 MHz (+)
Tone=110.9

VE7RSC Repeaters

2m: 147.360MHz+
Tone= 110.9Hz
IRLP node 1736
Echolink node 496228

1.2m: 223.960 Mhz -1.6
Tone=110.9

70cm: 443.775MHz+
Tone= 110.9Hz
IRLP node 1737



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These are suitable for sewing on a jacket, cap or your jammies, so you can proudly display your support for the club.

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Michael J. Wong VE7HMY
President/Owner
Commercial / Amateur Radio

4257 Hastings Street
Burnaby, B.C. V5C 2J5
Phone 604-298-5444
Fax 604-298-5455

Email: sales@burnabyradio.com
web: www.burnabyradio.com



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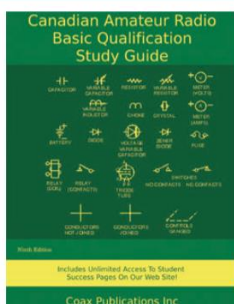
QUAD BANDS TRANSMISSION (including SW)
EIGHT BANDS RECEPTION (including AM & SW)

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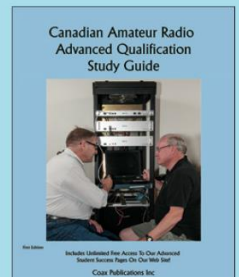
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